

What is claimed is:

1. A nucleic acid molecule (a) encoding human Kremen 1 and having the nucleotide sequence as depicted in Figure 1 or human Kremen 2 and having the nucleotide sequence as depicted in Figure 2, or (b) which is capable of specifically hybridizing to the nucleotide sequence encoding human Kremen 1 as depicted in Figure 1 and/or to the nucleotide sequence encoding human Kremen 2 as depicted in Figure 2
2. A diagnostic composition comprising
 - (a) at least one nucleic acid molecule which is capable of specifically hybridizing to the nucleotide sequence encoding Kremen 1 as depicted in Figure 1 and/or to the nucleotide sequence encoding Kremen 2 as depicted in Figure 2; or
 - (b) at least one ligand which is capable of specifically binding to a Kremen 1 and/or Kremen 2 polypeptide.
3. The diagnostic composition of claim 3, wherein the ligand is an antibody.
4. The diagnostic composition of claim 2 or 3, wherein the nucleic acid molecule has a length of at least 10 nucleotides.
5. The diagnostic composition of any one of claims 2 to 4, wherein the nucleic acid molecule or ligand are detectably labeled.
6. The diagnostic composition of claim 5, wherein the label is selected from the group consisting of a radioisotope, a bioluminescent compound, a chemiluminescent compound, a fluorescent compound, a metal chelate, or an enzyme.
7. The diagnostic composition of any one of claims 2 to 4,

wherein the nucleic acid molecule or ligand are bound to a solid support.

8. Use of a nucleic acid molecule or ligand as defined in any one of claims 1 to 7 for the preparation of a diagnostic composition for the diagnosis of a disease associated with (a) aberrant expression of *kremen 1* and/or *kremen 2* and/or (b) aberrant activities or amounts of a *Kremen 1* and/or *Kremen 2* polypeptide.

9. Use according to claim 8, wherein the target to which the nucleic acid molecule hybridizes is an mRNA.

10. A human *Kremen 1* or *Kremen 2* polypeptide, which is encoded by a nucleic acid molecule of claim 1.

11. A method of diagnosing a disease associated with (a) aberrant expression of *kremen 1* and/or *kremen 2* and/or (b) aberrant activities or amounts of a *Kremen 1* and/or *Kremen 2* polypeptide in a subject comprising:

(a) determining (a) the amount of expression of *kremen 1* and/or *kremen 2* and/or (b) the amount of biologically active *Kremen 1* and/or *Kremen 2* polypeptide in a biological sample; and

(b) diagnosing a disease associated with (a) aberrant expression of *kremen 1* and/or *kremen 2* and/or (b) aberrant activities or amounts of a *Kremen 1* and/or *Kremen 2* polypeptide or a risk for the development of such disease based on an altered amount of expression of *kremen 1* and/or *kremen 2* and/or (b) an altered amount of biologically active *Kremen 1* and/or *Kremen 2* polypeptide compared to a control.

12. A method for identifying a binding partner to a *Kremen 1* and/or *Kremen 2* polypeptide comprising:

- (a) contacting said polypeptide with a compound to be screened; and
- (b) determining whether the compound effects an activity of said polypeptide or whether binding of the compound to said polypeptide has occurred.

13. A method for identifying activators/agonists or inhibitors/antagonists of a Kremen 1 and/or Kremen 2 polypeptide comprising the steps of:

- (a) incubating a candidate compound with said polypeptide;
- (b) assaying a biological activity, and
- (c) determining if a biological activity of said polypeptide has been altered.

14. A method of identifying and obtaining a drug candidate for therapy of a disease associated with (a) aberrant expression of the gene encoding Kremen 1 and/or Kremen 2 and/or (b) aberrant activities or amounts of Kremen 1 and/or Kremen 2 comprising the steps of

- (a) contacting a Kremen 1 and/or Kremen 2 polypeptide or a cell expressing said polypeptide, and optionally the corresponding ligand(s), in the presence of components capable of providing a detectable signal in response to binding to said drug candidate to be screened; and
- (b) detecting presence or absence of a signal or increase of the signal generated, wherein the presence or increase of the signal is indicative for a putative drug.

15. An activator/agonist or inhibitor/antagonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) obtainable by the method of any one of claims 12 to 14.

16. A pharmaceutical composition comprising a compound which is capable of modulating the expression of a gene encoding Kremen 1 and/or Kremen 2 or the activity of Kremen 1 and/or

Kremen 2 and a pharmaceutically acceptable excipient, diluent or carrier.

17. The pharmaceutical composition of claim 16, wherein the compound stimulates expression of the gene encoding Kremen 1 and/or Kremen 2 or the activity of Kremen 1 and/or Kremen 2.

18. The pharmaceutical composition of claim 17, wherein the compound is a nucleotide molecule encoding a polypeptide having a biological activity of Kremen 1 and/or Kremen 2, a Kremen 1 and/or Kremen 2 polypeptide, an activator/agonist or inhibitor/antagonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) obtainable by the method of any one of claims 12 to 14.

19. Use of a compound as defined in claim 18 for the preparation of a pharmaceutical composition for the treatment of a disease associated with (a) aberrant expression of *kremen 1*, *kremen 2* and/or a gene involved into the wnt signal cascade and/or (b) aberrant activities or amounts of a Kremen 1, Kremen 2 and/or polypeptide involved into the Wnt signal cascade.

20. Use according to claim 8 or 19, wherein the disease is a tumor or a disease of the kidneys, bones and eyes, a disease associated with an aberrant lipid and glucose metabolism or obesity.

21. Use of a nucleotide molecule encoding a polypeptide having a biological activity of Kremen 1 and/or Kremen 2, a Kremen 1 and/or Kremen 2 polypeptide, an activator/agonist of a Kremen 1 and/or Kremen 2 polypeptide or binding partner of said polypeptide(s) for the preparation of a pharmaceutical composition for inhibiting the Wnt signal cascade.

22. Use according to claim 21 for supporting regenerative processes.